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Shadow Banking: Regulatory Reform and Its Effectiveness

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ABSTRACT

Over the past three decades, a large group of non-bank financial institutions has been formed in the world economy. These institutions fall outside the realm of traditional banking and take an active part in the lending processes of economic turnover entities. The activities of these institutions, called the shadow banking system (SBS), led to an increase in systemic risks and had a negative impact on the state of the global financial system. This was distinctly displayed during the global financial crisis of 2007–2009. The subject of this article is a series of measures taken by the international and national financial control bodies after the financial crisis to eliminate most risky aspects of shadow banking and to strengthen the system of financial oversight and monitoring. The final aim of the analysis is to evaluate effectiveness of the measures on strengthening control and limiting risks applied by the control bodies of the G-20 countries in the course of the reform to enterprises of the traditional and shadow sectors of the financial system. The results of the analysis show that the reform strengthened positions of traditional banks and improved their ability to resist financial shocks. As to the shadow banking sector, contrary to the statements of the initiators of the reform the regulative measures did not eliminate the systemic risks peculiar to nonbank financial institutions and did not stop their growing activities. This situation threatens the stability of the global financial system and a possibility of a new financial slump retains.

Keywords: shadow banking system; regulatory reform; financial stability; systemic risk; oversight and monitoring

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INTRODUCTION

In western economic literature, a shadow banking system is usually regarded as various types of non-bank financial institutions. They are intermediaries facilitating the creation of credit and other banking services to business enterprises and the public, but are not subject to regulatory oversight by official oversight authorities, nor do they use financial support of the central bank in crisis situations. Their specific feature is the excessive risk-taking and dependence on fluctuations in the economic conditions. This triggers and enhances crisis processes in the financial sector and the economy as a whole [1–3].

At the G20 Leaders' Summit in November 2010, the task was set to develop a new strategy for recovering the financial system and reducing systemic risks posed by institutions in the shadow sector. The reform focused on two main areas: developing an intensive oversight system of shadow structures and measures to mitigate risks and to counter threats to stability in the banking and non-banking sectors of the financial system.

The task of the article is to characterize the current state, range of activity and risks of the shadow sector, to identify the essence of the main regulatory measures taken by international and national supervisory authorities in relation to financial institutions of the traditional and shadow sectors, and to assess the validity of statements by official authorities to completely eliminate the SBS risks threatening the stability of the global financial system by now.

STRUCTURE, RANGE AND RISKS OF SBS

Academic studies and official documents of financial institutions use a special classification of the shadow banking system institutions and estimate financial assets controlled by them. The most popular are the calculations by the *Financial Stability Board* (hereinafter referred to as the FSB) established by the G20 Leaders in 2009. The duties of this body are "to coordinate at the international level the work of national financial authorities and international standard-setting bodies in order to develop and promote the implementation of effective regulatory, supervisory and other financial sector policies". One of the important tasks is to review recent trends and developments in the global shadow banking system and develop recommendations for its oversight and regulation in order to reduce systemic risks[1].

The FSB materials provide an estimate of the financial assets in two country groups. The first group includes 29 jurisdictions (countries), the FSB current members, and the second includes 21 countries from the previous list plus 8 euro area countries represented as one jurisdiction (21 + EA)[2]. The second set uses data from the European Central Bank for the euro area countries[3].

For analytical purposes, several segments are distinguished in the SBS structure. The broadest segment by the number of included institutions is the Monitoring Universe of Non-Bank Financial Institutions (hereinafter referred to as MUNFI). It comprises all non-bank financial institutions in the observed countries.

Another, narrower version of non-bank financial institutions used in the FSB analysis is "Other Financial Institutions" (hereinafter OFIs). It does not comprise central banks, insurance corporations, pension funds, public financial institutions, financial auxiliaries or other institutions that are not directly involved in credit intermediation processes.

Finally, the narrowest (and the most significant for our study) SBS measure includes non-bank financial entity types involved in credit intermediation for the real sector and

[1] Financial Stability Board. Shadow Banking: Strengthening Oversight and Regulation. Basel; 2011. URL: http://www.fsb.org/wp-content/uploads/r_111027a.pdf (accessed on 15.02.2019).

[2] Both groups include the Russian Federation. The Central Bank of the Russian Federation takes part in measures for ensuring the financial stability and publishes regular quarterly reports on the systemic risks in the Russian banking system and non-credit financial institutions, as well as on the measures taken to mitigate and control risks.

[3] Financial Stability Board. Global Shadow Banking Monitoring Report 2017. Basel; 2018. URL: https://www.fsb.org/wp-content/uploads/P050318–1.pdf (accessed on 18.02.2019).

population. The activity of this segment is considered the most dangerous ("toxic", as it is often called) for the financial infrastructure due to its functioning specifics and the methods of attracting resources of its institutions. Moreover, unlike traditional (deposit) banks, the latter are not directly controlled by national supervisory authorities [4–6].

According to the FSB analytical service calculations, the total global financial assets of all financial corporations were estimated at $ 340 trillion by end-2016. Of these, the assets of *non-bank* institutions belonging to the MUNFI measure amounted to $ 160 trillion, comprising OFIs ($ 99 trillion) and the "toxic" SBS ($ 45 trillion)[4]. The vast majority of the assets of shadow banking institutions in the OFIs are concentrated in the USA (33%), the euro area countries (34%) and the UK (12%).

The institutional composition of the SBS narrow measure is associated with shadow structures classified into functional groups that can disseminate and enhance the negative impact of systemic risks on financial market conditions through various channels.

The first group is *collective investment vehicles* (hereinafter — CIVs). They play an important role in financial intermediation accumulating the free capital of the business sector and the savings of individual clients and investing them in long-term government and corporate securities. This is a high-risk financial activity as there is a real risk of panic withdrawal by customers of invested funds (in the form of shares, units of investment funds, etc.) in worsening financial conditions.

The CIVs group includes various types of investment funds — money market mutual funds, open-ended fixed income funds, credit hedge funds, real estate funds, mixed funds holding a mix of equity and credit assets, and others. This is the largest group comprising more than 2/3 (72%, 32.4 trillion dollars) of all "toxic" SBS assets.

[4] Financial Stability Board. Global Shadow Banking Monitoring Report 2017. Basel; 2018. p. 8. URL: https://www.fsb.org/wp-content/uploads/P050318–1.pdf (accessed on 18.02.2019).

The second group includes numerous nonbank institutions providing loans to various groups of the population and enterprises of the manufacturing sector. These institutions threaten the financial stability by their dependence on the market sources of short-term funding used to replenish the resource base. Any deterioration in the conditions for obtaining liquidity in the money market causes financial stress and leads to significant monetary losses and bankruptcies of these institutions. Moreover, the instability of the institutions of this group is due to the fact that a significant part of their customers has low incomes and a low credit rating, which prevents them from obtaining loans from banks in the traditional sector.

The group includes finance companies, auto finance companies, retail mortgage provision companies and equipment finance companies. They comprise 8% of the "toxic" SBS assets for a total of $ 2.7 trillion.

The third place (10% of assets, $ 3.4 trillion) belongs to non-bank institutions related to *securitization* of financial assets and issuance of various types of debt obligations, mainly secured by mortgage bonds. Securitization is a complex multi-stage process where shadow structures of various types are actively involved (see below for more details).

Broker-dealers ($ 3.8 trillion corresponding to 11% of total SBS assets) occupy the main place in the next group. They operate in the money and stock markets and are dependent on short-term funding (in the form of issuance and placement on the market of commercial securities, repos, etc.). They supply customers with securities serving as collateral for loans, intermediate in the sale of shares, bonds and derivatives.

The broker-dealers operations are closely related to the activities of deposit banks, and some large securities trading companies after the 2007–2009 crisis were included in bank holdings. This interweaving of the functions enhances systemic risks as it creates favorable conditions in the financial system for the rapid growth of difficulties arising in the shadow sphere. This contagion process triggered rapid development and exacerbation of the 2007–2009 global crisis.

The rest of the SBS assets belong to relatively small groups of non-bank structures, for example, companies that provide guarantees on loans and transactions with derivatives.

It should be emphasized that the activities of the shadow banking sector institutions are of a dual nature. On the one hand, non-bank financial institutions contribute to increasing the efficiency of financial intermediation by engaging additional funds in active economic circulation and satisfying the financial services needs of numerous market entities that cannot receive them on usual terms. "Non-bank financing provides a valuable alternative to bank financing and helps support real economic activity. For many corporates and households, it is also a welcome source of diversification of credit supply from the banking system, and provides competition for banks"[5].

At the same time, as already noted, shadow structures are a source of increased risk that through its complex interconnectedness with the financial system may spread to other sectors and trigger slumps.

For the last quarter of a century, use of the latest financial technologies by shadow structures has become a potential threat to the stability while competing for a place in the current system of financial relations. For example, securitization of financial assets became popular in the United States and in several European countries in the pre-crisis years. To a large extent, it was associated with the boom in mortgage loans in these countries. Traditional banks used these operations as a tool in the competition to lower costs and increase operating income. However, securitization would not have progressed to this stage if it didn't take an active part in the operations by shadow financial institutions.

It is necessary to discuss the specifics of such operations and the role of shadow institutions in their implementation in more detail. A commercial bank seeking to use some illiquid assets of its portfolio to release new debt obligations to the market is at the beginning of the securitization chain[6]. A pool of debt-based assets (usually mortgage bonds) is formed on this purpose, which is transferred to a specially created intermediary structure (special purpose vehicles, hereinafter SPV). The latter, together with other shadow sector institutions (financial companies, hedge funds and other SIVs institutions, broker-dealers of the securities market), issues new obligations and sells them to investors in different countries of the world. Funds from the sale of these securities to investors allow the issuing bank to replenish its liquidity reserve and use it for current needs.

The increased risk of asset securitization operations for investors is secretive due to many participants in the operation (both banks and non-bank financial institutions), their complex relationships and the low information content of the procedures. An important role is also played by high rankings, not always justifiably assigned to new securities by large credit agencies. All this mislead potential investors into thinking that the purchased securities were reliable and of high liquidity.

Another factor contributing to the quality deterioration of structured securities in the pre-crisis years was that issuing banks included subprime mortgages in securitization pools due to the lack of high-quality mortgage obligations[7].

With the onset of the 2007–2009 crisis, confidence in securitization operations rapidly decreased which led to a drop in the market value of issued securities and to large

[5] Financial Stability Board. Global Shadow Banking Monitoring Report 2017. Basel; 2018. URL: http://www.fsb.org/wp-content/uploads/P050318–1.pdf (accessed on 18.02.2019).

[6] Such secondary obligations secured by financial assets are called structured securities.

[7] At the end of 2006, in the USA, as part of a gigantic accumulated mortgage debt, estimated at $ 6.5 trillion, low-grade securities amounted to about $ 1 trillion, and a significant part of them was used to issue structured obligations.

monetary losses of banks, insurance companies, investment funds and ordinary investors who had these securities. The causes of the financial catastrophe and a negative role of the shadow sector in its development were widely discussed in banking and scientific worlds. The damage and breaking the foundations of the traditional banking sector were identified. There was a need to assess the potential risks of shadow structures and develop urgent measures to remedy the current situation.

The role of the main analytical and coordination center for developing policies and measures to reduce systemic risks in the global financial system was entrusted to the Financial Stability Board. International organizations developing financial standards made an important contribution to the study of shadow banking problems and the implementation of protective measures[8]. As a result, recommendations were formulated and legislative acts aimed at limiting risks and forming an extensive oversight and monitoring system at the international and national levels were adopted.

CHANGES IN THE REGULATORY SYSTEM OF SHADOW BANKING

At the G20 Leaders' Summit in November 2010 in Seoul, the task was set to develop a new strategy for recovering the financial system and reducing systemic risks posed by institutions in the shadow sector. The work focused on two areas. First, it was about developing *an intensive oversight system* of shadow structures which should ensure ongoing monitoring of SBS processes and identify the sources of the arising systemic risks. Second, it was necessary to develop *a policy to counter threats* in the banking and non-banking sectors of the financial system.

In the second area, special attention was paid to measures aimed at: reducing the interaction between banks and shadow structures, reducing liquidity and maturity mismatching in the balance sheets of non-bank institutions, as well as providing more information about shadow structures activities, especially about securitization of financial assets.

An important step in developing an effective oversight system was the introduction of annual global monitoring by the Financial Stability Board since 2011. The monitoring determines the main trends, scale of operations and risks in the shadow banking system based on the statistics of the countries-participants. The latest (seventh) report, published in May 2018, summarizes the results of the observations for 2016 in 29 jurisdictions, which account for 80% of global GDP[9].

The next step in the oversight system development was taken in 2013, when the G20 Leaders' Summit in St. Petersburg adopted a program on strengthening the oversight and monitoring of shadow banking activities[10]. The program was intended for the highest financial authorities of the countries-participants and provided for a regular analysis of the SBS institutions, as well as the development of methods to reduce systemic risks associated with non-bank structures in credit intermediation processes. Besides, the task was set to establish a closer information exchange between the countries-participants through the FSB to ensure a single approach to the implementation of reform measures.

In 2015, peer review was introduced to evaluate the measures on strengthening the oversight and monitoring of shadow banking activities. This contributed to enhanced information sharing and risk identification.

All of these measures let organize an extensive system of monitoring the development trends of the shadow sector and did the

[8] These include the Basel Committee on Banking Supervision (BCBS), the International Organization of Securities Commissions (IOSCO), the International Association of Insurers-Supervisors (IAIS), the Committee on the Global Financial System (CGFS) and several others.

[9] Financial Stability Board. Global Shadow Banking Monitoring Report 2017. Basel; 2018. URL: http://www.fsb.org/wp-content/uploads/P050318–1.pdf (accessed on 18.02.2019).

[10] Financial Stability Board. Policy Framework for Strengthening, Oversight and Regulation of Shadow Banking Entities. Basel; 2013. URL: http://www.fsb.org/wp-ntent/uploads/r_130829c.pdf (accessed on 15.02.2019).

groundwork for certain actions limiting the SBS negative impact on financial stability.

The second direction of the regulatory policy focused on developing measures to weaken the ties of traditional banks with shadow structures. In the pre-crisis years, sponsor banks actively collaborated with various non-bank institutions and provided them with an opportunity to use their financial resources to conduct operations. Ultimately, this provided shadow structures with the access to official sources of financing (for example, to the discount window of the central bank), which they were not allowed to use according to the current banking legislation.

Moreover, banks often included assets of shadow organizations involved in securitization operations in their accounting reports under the guise of their own off-balance sheet accounts. As a result, the bank benefited by applying low risk indicators to calculate the capital adequacy ratios in accordance with the rules of the Basel Committee on Banking Supervision.

To limit this practice, the accounting rules were changed in the countries-participants at the FSB initiative. Thus, the US Accounting Standards Board ordered the banks sponsoring shadow institutions to indicate the assets in their balance sheets in a separate line and cover them at the expense of equity at higher rates. Another example: the China Banking Regulatory Commission banned banks from using trust companies to conduct lending operations under the guise of property management. As a result, this practice significantly decreased, but new types of contact between Chinese banks and the SBS appeared.

The activities of the Basel Committee on Banking Supervision played a significant role in weakening the ties of traditional banks with shadow structures. In 2009, the Basel II Accord (adopted in 2004) increased the capital requirements of banks for liquid assets used in asset securitization operations[11]. Later, in the Basel III (2010), the capital requirements for banks were increased again. Besides, a liquidity coverage ratio was introduced (from the beginning of 2015) to create an additional cash reserve in banks in case of runs. The value of the coefficient should reach its maximum by 2019.

Later, the Basel III rules were adjusted and supplemented. Regulatory requirements were introduced for bank capital investment in shares of investment funds (since January 2017); derivatives margin requirements (September 2016), new liquidity ratios (since January 2019), the minimum standard for net stable funding ratios (since January 2018), and others[12].

As the analysis shows, the measures by the FSB and other international and national supervisory authorities to strengthen the positions of traditional banks and increase their resistance to shadow banking were generally successful. However, observed in recent years, the rapid growth of assets and operations of investment funds, broker-dealers securities, as well as emerging new forms of cooperation between shadow institutions and banks, slowed the development of this trend. The FSB analysts have to admit that current bank relations with the shadow business are even at a higher level than in the pre-crisis years[13].

Another set of regulatory measures was associated with excessive level of leverage and liquidity and maturity mismatching in the balance sheets of shadow structures. High leverage indicates the excessive use of credit sources of funding by non-bank financial institutions. High leverage and maturity mismatching is an addi-

[11] Basel Committee on Banking Supervision. Proposed enhancements to the Basel II framework. Consultative document. Basel: 2009. URL: https://www.bis.org/publ/bcbs150 (accessed on 15.02.2019).

[12] Basel Committee on Banking Supervision. Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools. Basel: 2013. URL: https://www.bis.org/publ/bcbs238.pdf (accessed on 15.02.2019).

[13] Financial Stability Board. Assessment of shadow banking activities, risks and the adequacy of post-crisis policy tools to address financial stability concerns. Basel; 2017. URL: http://www.fsb.org/wp-content/uploads/P300617–1.pdf (accessed on 18.02.2019).

tional factor which increases their vulnerability during periods of financial stress. It contributes to runs and makes investment funds and other shadow institutions sell assets at reduced prices. Ultimately, such disasters in the money market lead to erosion of the financial system stability.

The FSB activities in this area can be divided into three groups: 1) measures to strengthen the position of money market funds (MMF), especially susceptible to runs; 2) changes in the structural and other activities of securities market operators; 3) increasing the transparency and reliability of securitization of financial assets.

Let us start with the MMF reforms. In October 2011, the FSB published recommendations to limit shares repurchases by the MMF customers. Later, considering these recommendations, the International Organization of Securities Committees (IOSCO) developed new rules for the MMF activities. In particular, it envisaged reorganizing some funds by transferring them to another category with limited options for the shares repurchases by their holders[14]. In addition, new quality standards for assets were introduced. In the United States, where most of the MMF global assets are concentrated, the Securities Commission approved these changes. Some EU countries (France, Luxembourg, Ireland) took measures to reduce bank sponsorship of funds and to limit the right to immediate shares repurchase.

To streamline the work of intermediaries in the securities market, the FSB recommendations on reducing risks in financing securities transactions were published in 2013[15]. They dealt with issues of multilateral offsets for the sale of securities, monetary value of securities used as collateral for credit transactions and other procedures. Particular attention was paid to repo transactions[16], which are often used by securities market operators as a source of short-term funding. The greatest risk is associated with tri-party repos, where, besides the lender and the borrower, there is also a clearing bank that performs some intermediary functions (evaluation of securities lodged as collateral, payment clearing, etc.). These operations are associated with risks of intraday credits provided by the clearing bank to the participants in transactions, which leads to disruption of the settlement system and tightening credit conditions in the money market. The FSB recommendations were used in the United States, where the financial authorities control over the two large banks-providers of tri-party repos led to a reduction in operations using intraday credits from 100% in 2012 to 5% in 2015 of the amount of obligations on credits received[17].

In countries with developed stock markets, other regulatory measures were taken to reduce risks. In 2012, the US Financial Stability Oversight Council introduced leverage and liquidity limits for securities market operators and other non-bank institutions.

Another area of regulation is increasing openness and standardizing securitization of financial assets. As already mentioned, the mass issue and a large number of structured securities in the investors' portfolios were one of the reasons for the rapid development of the 2007–2009 global crisis. At the end of the acute phase of the crisis, international

[14] This is about transferring the MMF from the CNAV (constant net asset value) category to the VNAV (variable net asset value) category. For the MMFs of the VNAV type, the time periods for the shareholders to repurchase and the size of the commission for this transaction vary depending on the weekly changes in the average value of assets (securities in the fund's portfolio) for which the repayment period is due. For the CNAV funds, this condition is absent, the value of the shares is constant and independent of the assets value, and the shares are repurchased immediately upon presentation.

[15] Financial Stability Board. Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos. Basel; 2013. URL: https://www.fsb.org/wp-content/uploads/r_130829b.pdf (accessed on 15.02.2019).

[16] REPO (repurchase agreement) is a form of short-term borrowing for dealers in securities (as a rule, government obligations). The dealer sells government securities to investors and agrees to repurchase it in the future.

[17] Financial Stability Board. Assessment of shadow banking activities, risks and the adequacy of post-crisis policy tools to address financial stability concerns. Basel; 2017:16. URL: http://www.fsb.org/wp-content/uploads/P300617–1.pdf (accessed on 18.02.2019).

financial organizations (FSB, IOSCO, BCBS) proposed a number of measures to simplify securitization procedures, to provide more information to investors and regulate the relationship between issuers and buyers of securities. Among them, a special place belongs to the rule according to which the issuer (or the sponsor of the issue) must *always* keep a minimum of issued securities in the portfolio as an additional guarantee of their reliability and high quality. In 2011, a minimum of 5% of the issue amount was set in the EU countries. The same minimum was later introduced in the United States.

Ratings assigned by credit agencies to structured securities issues were also touched upon. During the crisis, these ratings turned out to be significantly overestimated in many cases and did not correspond to the real market value of the securities. In May 2008, the International Organization of Securities Commissions (IOSCO) published the revised "Code of Conduct Fundamentals for Credit Rating Agencies" [18]. The rating agencies were instructed to strictly adhere to the rules set forth in the Code, in particular, to publish an explanation of the principles underlying the assessment for each rating.

Also, measures were taken to reduce the dependence of banks on ratings published by credit agencies. The FSB has developed a set of rules preventing the mechanical use of ratings by the regulated financial institutions. Most G20 members amended their financial legislation accordingly. However, in the Basel III, the use of ratings of some credit agencies was retained in calculating bank capital adequacy ratios.

EFFECTS OF TRADITIONAL AND SHADOW BANKING SYSTEM INSTITUTIONS REFORMS

The recommendations of the FSB and other international financial organizations have had a significant impact on the work of financial institutions. The results of these activities can be seen in the annual progress reports on reforms initiated by international and national supervisory authorities in the United States and other G-20 countries. Published in November 2018, "Implementation and Effects of the G20 Financial Regulatory Reforms" annual review emphasizes that "the reforms made the financial system more resilient and thereby reduced the likelihood and severity of future crises" [19].

However, the reforms had different effects on various sectors of the global financial system. The conclusion about the positive impact of the reforms should primarily be attributed to the traditional banking system which has become more resistant to economic shocks due to the increased capitalization of large banks and increased control over the leverage and liquidity level [7].

The thesis about the effectiveness of the reform measures is less relevant when it comes to the shadow banking sector. Nevertheless, the FRS materials on the SBS activities for 2017 state that, as a result of the measures taken, the systemic risks inherent in the shadow sector enterprises supposedly no longer pose a danger to the financial system stability: "*Aspects of shadow banking considered to have contributed to the financial crisis have declined significantly and generally no longer pose financial stability risk.*" (author's italics) [20].

Such statements are promotional by nature and deny the danger of shadow sector risks to the global financial system. However, it is not considered that the regulatory measures taken by the FSB and other supervisory authorities

[18] International Organisation of Securities Commissions. Code of Conduct Fundamentals for Credit Rating Agencies. Madrid: 2008. [URL IOSCOPD 271.pdf] (accessed on 15.02.2019).

[19] Financial Stability Board. Implementation and Effects of the G20 Financial Regulation Reforms. 4th Annual Report. Basel; 2018. URL: www.fsb.org/wp-content/uploads/P030717–2.pdf (accessed on 18.02.2019).

[20] Financial Stability Board. Assessment of shadow banking activities, risks and the adequacy of post-crisis policy tools to address financial stability concerns. Basel; 2017:1. URL: http://www.fsb.org/wp-content/uploads/P300617–1.pdf (accessed on 18.02.2019).

with respect to traditional banks and shadow institutions have qualitative differences[21]. As for traditional (deposit) banks, the reform affected important indicators determining the basic conditions for the banking system stability, such as the minimum amount of bank capital or a sufficient bank liquidity. These changes were reflected in the official legislative acts of the most countries participating in the reform.

Thus, in the banking systems of 24 jurisdictions, the Basel III recommendations on new bank capital requirements, liquidity ratios and acceptable levels of leverage were adopted and recorded in national laws. The same applies to meeting the requirements to increase limits on covering losses for global systemically important banks (introduced in all G-20 jurisdictions) and for national systemically important banks (introduced in 24 jurisdictions). The other measures of banking regulation are reflected in the legislation in a similar way.

The situation is different when it comes to the regulatory reforms addressing shadow institutions that perform banking functions. The measures concerned only certain aspects of their operating activities, such as weakening of some SBS communications links with traditional banking, changes in lending conditions for certain types of transactions with securities, limiting ratings to issues of structured obligations and other similar procedures. This did not affect solving such important issues as strengthening the capital base of shadow institutions, reducing liquidity and maturity mismatching of their financial reporting indicators, receiving financial assistance by these institutions from official structures in emergency situations, and other reasons for the increased instability of this sector. Naturally, these measures did not lead to any significant limitation of the SBS risks and a decrease in its negative impact on global financial processes.

According to statistics, in recent years shadow structures have shown a steady upward trend in assets and the expansion of operating activities. From 2013 to 2017, the global OFIs assets increased from $ 62 to $ 99 trillion, and the amount of assets most risky for the financial stability of shadow institutions is from $ 35 to $ 45 trillion. At the same time, the categories of shadow institutions growing at a faster rate are subject to runs in deteriorating market conditions. In 2011–2015, the assets of investment funds grew at the average annual rate of 12.9%, and in 2016–8.7%[22].

Speaking about the causes of shadow banking expansion and its successful striking at traditional banks, we should first point out the consistent tightening of the business rules in the regulated banking sector after the 2007–2009 crisis. To minimize risks and ensure the safety of bank depositors, supervisors, as already noted, repeatedly increased the requirements for bank capital adequacy in the framework of the Basel II and Basel III, introduced new liquidity ratios, limited the ability of banks to perform risky operations in the stock market, etc.

This inevitably led to an increase in transaction costs and a diminishing bank profit. To reduce losses, banks had to impose more stringent requirements on the financial security of customers and increase the services costs. This offered a strong inducement for some customers (especially those with low credit ratings) to address the services in the shadow sector, called *regulatory arbitrage* [9]. Shadow institutions are less discerning when choosing clients, offer more favorable conditions and take on increased credit risks. Their activities are expanding, and as a result there is the general risk level in the financial system is increasing [10].

Another factor stimulating the increased ac-

[21] This is indicated by economists who analyze shifts in the shadow banking system. For example, Sheila Judd, Canadian Global Risks Institute, notes: "However, regulation for shadow banks remains much less robust than it does for banks. In particular, the capital, leverage and liquidity reforms that have been implemented post the financial crisis apply only to banks, allowing shadow banks to take on higher levels of risk" [8, p. 1].

[22] Financial Stability Board. Global Shadow Banking Monitoring Report 2017. Basel; 2018. URL: http://www.fsb.org/wp-content/uploads/P050318–1.pdf (accessed on 18.02.2019).

tivity of shadow enterprises is associated with the use of the latest financial technologies which are in growing demand with business and consumer lending. An example is fintech development in recent years that enables to provide loans directly, cutting out classical financial intermediaries (P2P lending) [11]. The transactions are conducted online on matching platforms, supervised by shadow financial institutions[23].

A group of authors from the US National Bureau of Economic Research on studied the connection of fintech with the SBS rising influence convincingly and revealed that such operations are usually more convenient and accessible for participants in transactions than loans in traditional banking. As a result, banks are losing part of the consumer and mortgage market. In 2007–2015, the share of the shadow structures operations in the US mortgage market tripled, and the operations using fintech accounted for one third of the SBS total loans [12, 13].

The measures to tighten the operational supervision over shadow institutions will be searched as part of the ongoing global campaign on strengthening financial stability in the G-20 countries. This was repeatedly stated by the FSB executives[24]. However, as shown above, such a policy often has the opposite effect. It brings new customers into the shadow sector and stimulates the search for new opportunities for credit and other banking operations outside the scope of traditional banking. It leads to an accumulation of systemic risks in the financial system.

[23] In another fintech model, the lender, as in the previous version, communicates directly with potential borrowers. However, here the loan is originated by a partnering bank (i.e. after a bank lends funds, the loan is sold or assigned to one or more creditors).

[24] “The landscape of shadow banking activities continues to evolve. Consequently, identifying and assessing new and emerging risks remains essential in future”. Domanski [14, p. 1].

CONCLUSIONS

The analysis shows that although the shadow banking sector, like the entire global financial system, suffered significant losses as a result of the 2007–2009 global financial crisis, shadow structures have been actively developing and expanding their activities in recent years.

The G20 campaign on improving the regulation of shadow banking helped mitigate some risky activities and procedures of shadow institutions, but did not affect the fundamental approaches of shadow structures leading to lower requirements when choosing customers and accepting higher risks. The financial instability of shadow structures, the lack of support from the authorities and the potential contagion of traditional banking institutions in case of financial disasters still pose a real threat to economic stability. In case of any serious deterioration in the conditions of economic development in the world business community, this situation will contribute to creating conditions for a new financial slump.

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